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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,638	02/19/2004	Wade E. Hairfield SR.	HAIR 01	4127

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EXAMINER

FLORY, CHRISTOPHER A

ART UNIT	PAPER NUMBER
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3762

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/782,638

Applicant(s)

HAIRFIELD, WADE E.

Examiner

Christopher A. Flory

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The affidavit filed on 1 February 2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the Tucek'708 reference.
2. The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Tucek'708 reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897). In this case, the submitted pictures do not clearly show the critical inventive step of the nested ring electrodes, and are undated. Likewise, the schematic drawings fail to clearly show all of the structure in the claims, and are also undated. The parts list (pp. 16-17 submitted 1 February 2007) is handwritten and undated, and also fails to list components that would specifically be fashioned into the inventive embodiment of two ring electrodes positioned within one another.
3. The evidence submitted is insufficient to establish due diligence from a date prior to the date of reduction to practice of the Tucek'708 reference to either a constructive reduction to practice or an actual reduction to practice (*Ex parte Hunter*, 1889 C.D. 219, 49 O.G. 733). While diligence need not be considered unless conception of the invention prior to the effective date is clearly established (*Ex parte Kantor*, 177 USPQ 455 (Bd. App. 1958)) it is noted that the affidavit filed by Applicant on 1 February 2007

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fails to account for any dates in between the filing date of the instant application and the alleged date of conception submitted as August 2002. For diligence to be shown, Applicant must make the effort to show active steps taken on a reasonable time scale towards reduction to practice between the two dates.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 and 3-5 stand rejected under 35 U.S.C. 102(e) as being anticipated by Tucek (US Patent Publication 2004/0138708, hereinafter referred to as Tucek'708).

Regarding claim 1, Tucek'708 discloses an electrode (Fig. 5, electrode 11) comprising an outer cylindrical conductor (Fig. 2, winding 25; paragraph [16]); an inner cylindrical conductor (Fig. 1, first electrode 23; paragraph [16]); a plurality of members securing the inner cylinder inside the outer cylinder (Fig. 2, cap 21 and base 22; paragraphs [15] and [16]); a power source connected to the inner and outer cylinders (paragraph [17]) suitable for supporting a current flow of between 0.1 and 4 amps between the cylindrical conductors of the electrodes (paragraphs [17] and [23]-[27]); an open topped basin sized sufficiently large to hold the electrode and a user's feet (Fig. 5, foot bath 12) submersed in a conductive liquid contained within the basin (Fig. 5, water

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14; paragraph [22]); and wherein the power source has a failsafe circuit breaker preventing a set power limit from passing between the electrodes (Fig. 4, fuses 44; paragraph [17]).

Regarding claim 3, Tucek'708 discloses a bolt with an insulating sleeve (Fig. 2, post 26 and fitting 27; also, base 22 can be considered an insulating sleeve).

Regarding claim 4, Tucek'708 discloses a stand forming an insulator between the conductors (Fig. 2, base 22; paragraphs [15] and [16]).

Regarding claim 5, Tucek'708 discloses that the power source can comprise an AC/DC transformer based circuit (paragraph [17] having a fuse (Fig. 4, fuses 44), a circuit breaker (either fuses 44 or removably attachable male plug 29 in Fig. 2 is a circuit breaker), and a timer (paragraph 20).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tucek'708.

Regarding claims 2 and 6, Tucek'708 discloses the invention substantially as claimed, but does not explicitly disclose that the electrode have outer cylinder dimensions of 2 inches wide and 3 inches high, and the inner cylinder have dimensions

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of 1 inch wide and 4 inches high, or that the surface area ratio of the outer conductor to the inner conductor is about 3:2. In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. In the case of the instant application, the claimed dimensions of the electrode would create the same stimulating and ozonizing effect as any electrode of smaller or larger size, such as that of the embodiment disclosed in Fig. 6 of the instant application. Therefore, the claim limitations to size do not distinguish over the electrode of Tucek'708. Alternatively, it would have been obvious to one having ordinary skill in the art at the time of the invention to construct an electrode of the claimed size or ratio, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges (*In re Aller*, 105 USPQ 233) or optimum value of a result effective variable (*In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)) involves only routine skill in the art.

8. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ostrow (US Patent 5,741,317, hereinafter referred to as Ostrow'317) in view of Bässler et al. (US Patent 4,410,495, hereinafter referred to as Bässler'495).

Regarding claims 1 and 4, Ostrow'317 discloses an electrode (column 1, lines 41-59); a power source to both the anode and cathode (Fig. 7, anode 82 and cathode

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84); a basin having conductive fluid therein (ABSTRACT; column 4, lines 32-38) with the electrode immersed in the fluid (Fig. 1; column 5, line 63 through column 6, line 6); and a stand forming an insulator between the conductors (column 5, lines 62-67—the plastic tub in which the electrodes are housed is considered to be the insulating stand between the conductors).

Ostrow'317 discloses the claimed invention but does not disclose expressly the electrode comprising an outer cylindrical conductor and an inner cylindrical conductor. In the same *problem solving area*, Bässler'495 teaches an ozonizer *capable of delivering safe, low energy currents* formed of an interior electrode in the form of an electrically conducting tube arranged concentrically [to]...at least two parallel electrically conducting sleeves, which are separated axially relative to one another and surrounding the insulating tube to form the exterior electrode of the ionizer" (ABSTRACT; Fig. 1, inner tube 1 and exterior electrode 2) for the purpose of economical ozone production (column 2, lines 14-17). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system as taught by Ostrow'317 with the ozonizer as taught by Bässler'495 to provide the Ostrow'317 system with the same advantage of more economical ozone production (motivation to combine provided by Bässler'495, column 2, lines 14-17).

Furthermore, it has been held that making an inventive element separable, e.g. replacing the housed electrode of Ostrow'317 with the disconnected electrode of the instant application, involves only routine skill in the art (*In re Nerwin v. Erlichman*, 168 USPQ 177, 179).

Ostrow'317 et al. does not explicitly disclose that the power source include a circuit breaker. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a circuit breaker since it is known in the art that circuit breakers provide a necessary safety circuit to protect the health or, in extreme cases, the life of the user. Therefore, the claim limitation of a circuit breaker does not distinguish over the prior art. Alternatively, in the same field of endeavor, Bässler'495 teaches a circuit breaker (Fig. 1, exploded view 'A', break-over diodes 7) to shunt current from one conductor to the other in order to reverse polarity of the electrode. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Ostrow'317 with the circuit breaker/switching diodes as taught by Bässler'495 in order to provide Ostrow'317 with the same advantage of being able to completely and repeatably switch current and voltage from one conductor to the other to switch electrode polarity.

Further regarding claims 1 and 4, Ostrow et al. discloses the invention substantially as claimed, but does not explicitly disclose that the current between the conductors should range from 0.1 to 4 amps. It would have been obvious to one having ordinary skill in the art at the time of the invention to use an operable range of 0.1 to 4 amps, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges (*In re Aller*, 105 USPQ 233) or optimum value of a result effective variable (*In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)) involves only routine skill in the art. In this case, it is also well known

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that current below 0.1 amps is of insufficient magnitude for a human to detect, while currents above 4 amps may become dangerous to the user.

Regarding claims 2 and 6, Ostrow'317 does not explicitly disclose that the electrode have outer cylinder dimensions of 2 inches wide and 3 inches high, and the inner cylinder have dimensions of 1 inch wide and 4 inches high. In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. In the case of the instant application, the claimed dimensions of the electrode would create the same stimulating and ozonizing effect as any electrode of smaller or larger size, such as that of the embodiment disclosed in Fig. 6 of the instant application. Therefore, the claim limitations to size do not distinguish over the electrodes of Bevan et al. and Bässler et al.

Regarding claim 3, Ostrow'317 in view of Bässler'495 discloses the invention substantially as claimed except for the connecting member comprising a bolt having an insulating sleeve. It would have been within the skill of the art to substitute the insulating tube retaining element of Bässler'495 with bolt and insulating sleeve as claimed in the current application, since they are alternate equivalents and it has generally been held to be within the skill level of the art to substitute alternate equivalent

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expedients. Therefore, the limitations of claim 3 do not distinguish the instant application over the prior art.

9. Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Ostrow'317 in view of Bässler'495 as applied to claim 1 above, and further in view of Kurokawa et al (US 20040010845, hereinafter Kurokawa'845).

Ostrow'317 in view of Bässler'495 discloses the claimed invention substantially as claimed except for a power source that includes a timer. In the same field of endeavor, Kurokawa'845 teaches the use of an operation timer (Fig. 9, operation timer switch 56). Kurokawa'845 does not explicitly state why the operation timer is used, but it appears that the operation timer is used to provide the user the ability to control the amount of time that the heating and electrolytic water producing elements are active, thus selecting a desired length of treatment. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system as taught by Ostrow'317, with the timer as taught by Kurokawa'845, since such a modification would provide the system with a means for providing the user with the ability to select a length of treatment using the invention (motivation to combine provided by Kurokawa'845).

Response to Arguments

10. Applicant's arguments, see paragraph 3 of page 3, filed 1 February 2007, with respect to a rejection of claim 1 under 35 U.S.C. §103(a) as obvious over Ostrow'317 by

way of obvious design choice have been fully considered and are persuasive. The obvious design choice §103 rejection of claim 1 has been withdrawn.

11. Applicant's arguments filed 1 February 2006 have been fully considered but they are not persuasive. Claims 1-4 and 6 stand rejected under 35 U.S.C. §103(a) as being obvious over Ostrow'317 in view of Bassler'495. Claim 5 stands rejected as above and further in view of Kurokawa'845.

12. In response to applicant's argument that Bassler'495 is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Bassler'495 teaches an ozonizer that would be capable of delivering safe, low level, low energy trickle charges, which qualifies it as reasonably pertinent art directed toward the problem of using a specific electrode to create ionizing charge.

13. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

14. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

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where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Bassler'495 teaches an electrode of a nested ring formation as claimed by Applicant that could be used to deliver ionizing trickle charges of the desired field distribution.

15. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

16. Specifically regarding the arguments directed towards the rejection of claim 5 using the Kurokawa reference (see page 9 of the file submitted 17 August 2006), in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves **or in the knowledge generally available to one of ordinary skill in the art**. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*,

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958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is well within the common knowledge of one of ordinary skill in the art to conclude that a timer, such as the one disclosed in Kurokawa'845 is used to provide the user the ability to control the amount of time that the heating and electrolytic water producing elements are active, thus selecting a desired length of treatment.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Flory whose telephone number is (571) 272-6820. The examiner can normally be reached on M - F 8:30 a.m. to 5:00 p.m..

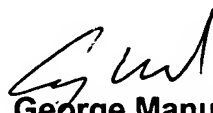
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher A. Flory

19 March 2007


George Manuel
Primary Examiner